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THE PLANT DISEASE REPORTER

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BUREAU OF PLANT INDUSTRY

UNITED STATES DEPARTMENT OF AGRICULTURE

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THE OFFICE OF MYCOLOGY AND DISEASE SURVEY

Volume XI May 15, 1927 Number 2

MORE INFORMATION ON APPLE SCAB

Maryland: Abundant scab infection noted on leaves in one old orchard in Calvert County, May 10. (Haskell)

New York:(Suffolk Co.): Most of the commercial orchardists have applied the pre-blossom spray on apples although weather conditions have not been favorable for scab infection. (J. M. Sinden, New York Sta. Col. Week. News Letter, May 9)

Virginia: No scab has developed thus far. Ascospores of scab were ejected during the rains of April 21, 29 and 30. Cedar rust spores were also produced during these rains. (Schneiderhan, Report of Winchester Laboratory, May 1)

We have been scouting for scab infection, but have been unable to find a single lesion.

Ascospore discharges of scab were recorded for May 7 and 8. (Schneiderhan, Report of Winchester Laboratory, May 8)

West Virginia: I found the first apple scab lesions on leaves in this section of the state on May 8. I judge infection took place during the rainy weather of the last week in April. Although ascospores matured very early here, and discharges occurred the first of April, conditions in this locality were evidently not favorable for infection.

In the lower Ohio Valley region, however, where the season is about three weeks earlier this year than in this locality, I found well advanced scab lesions on leaves two weeks ago. (Sherwood, May 10)

Massachusetts

1921	First discharge of ascospores	(Middlesex County)	April 26
1922	" " " "	" "	May 2
1923	" " " "	" "	May 2
1924	" " " "	" "	May 3
1925	" " " "	" "	April 30
1926	" " " "	" "	May 3
1927	Mature spores in asci	(Hampshire County)	April 22
1927	" " " "	(Middlesex County)	April 30
1927	First discharge of ascospores	(Hampshire County)	April 23

Note: Unusually dry conditions have prevailed throughout the state during March and April, the rainfall having been far below normal. It is likely, therefore, that initial scab infection will be light. (Osmun, Doran, and Guba, May 5)

BLACK ROT LEAF SPOT ABUNDANT IN SOME SECTIONS

Maryland: Noted in several neglected home orchards in Calvert County, May 10. Infection seemed to be unusually severe for this time of year. Many leaves were yellowing and dropping to the ground. (Haskell, May 10)

Virginia: The severest infection in six years by frog-eye was noted in the Blandy Experimental Orchard last week. This infection was not limited to the usually susceptible Ben Davis but was noted on York, Stayman and even on Grimes. The infection on Ben Davis was nearly 100 per cent. Infection was somewhat more heavy beneath black rot cankers than in other parts of the tree. This particular orchard has been neglected for several years. We shall keep this orchard under observation this summer. (Schneiderhan, Report of Winchester Laboratory, May 8)

West Virginia: Leaf spot (Sphaeropsis) is very prevalent in all sections of the state, infection having occurred at a very early stage of leaf development. (Sherwood, May 10)

CEDAR RUST DATA

Virginia: Cedar rust spores were also produced during rains of April 21, 29 and 30. (Schneiderhan, Report of Winchester Laboratory, May 1)

Rust spores were liberated on May 7 and 8 from the galls on the cedar trees. (Schneiderhan, Report of Winchester Laboratory, May 8)

POWDERY MILDEW OF APPLE

District of Columbia: Conspicuous on new growth of a Yellow Transparent, May 12. (Haskell)

Virginia: Mildew appeared on May 1 on York leaves in the laboratory grounds. (Schneiderhan, Report of Winchester Laboratory, May 1)

West Virginia: Powdery mildew of apple is quite general on Jonathan and is noted also on more of the other varieties than are usually affected. This is probably due in part to the omission of the "pink" spray. Many growers failed to complete this spray on account of unfavorable weather conditions and the shortness of the cluster-bud stage. (Sherwood, May 10)

PEAR BLIGHT CANKERS ACTIVE IN WAYNE COUNTY, NEW YORK

"Fire blight has been oozing since Monday and in a few cases the canker margins are being extended." (W. S. Crosier, New York Sta. Col. Week. News Letter, April 25)

"Fire blight cankers are oozing again and it seems that the bacteria are advancing the canker margins. Very few active cankers were found in Seckels or Kieffers but Clapps and Bartletts, especially in cultivated orchards are blighted as far down as the trunks." (W. S. Crosier, New York Sta. Col. Week. News Letter, May 9)

MORE NOTES ON BROWN ROT OF STONE FRUITS

New York (Suffolk Co.): Brown rot, blossom blight was found to have killed practically all the blossoms in one apricot planting. (J. M. Sinden, New York Sta. Col. Week. News Letter, May 9)

Pennsylvania: On April 12 I observed an abnormally heavy production of mature apothecia coming from peach mummies in Montgomery County. These brown rot apothecia were mature and in some cases had apparently been out for several days, as old stalks of apothecia were sometimes observed. A few apothecia were found in Lebanon County on April 13. Examinations made in several other counties such as Center, Clearfield, Jefferson, and Venango, failed to find any apothecia. (Kirby, April 28)

Virginia: Very prevalent on peach trees on the Hampton Institute Farm and in the vicinity. (Turner, May 4)

VIRGINIA AND WEST VIRGINIA REPORT PEACH LEAF CURL PREVALENT

"The heaviest infection by peach leaf curl noted in six years has appeared in this section on most varieties. The infection on one small tree was 65 per cent and reports from other sections indicate an even heavier infection. The abnormalities of seasonal climate, -- the unusually early high temperatures followed by three weeks of cool, wet weather probably afforded an optimal condition for infection. This weather factor together with failure to apply the dormant spray has enabled the disease to gain a strong foothold. A very severe defoliation will follow this infestation." (Schneiderhan, Report of Winchester Laboratory, May 8)

"Peach leaf curl is very prevalent in all sections of the state and in many orchards which were not sprayed in the dormant stage, the disease is serious enough to cause considerable loss." (Sherwood, May 10)

DOWNY MILDEW (BREMIA LACTUCAE) OF LETTUCE

New York: Downy mildew of lettuce showed up in several cold frames where conditions have been ideal for its growth. (E. J. Hambleton, New York Sta. Col. Weak. News Letter, May 9)

CEREAL DISEASES IN CALIFORNIA

Prof. W. W. Mackie wrote to the Office of Cereal Crops and Diseases on April 19 that he had recently made inspections in the Santa Clara, Salinas, San Joaquin and Sacramento Valleys in regard to cereal diseases. He says:

"I found that Septoria is causing considerable damage in all the early sown fields. It also is causing more damage at Davis than usual, attacking practically all of our wheats very severely. Barley scald is causing considerable damage in the central portion of the state. It is prevalent in all parts but is not very severe, except in the central portion. Net blotch of barley has caused a great deal of leaf pruning in early sown barley everywhere. Halo blight of oats is also more severe than usual. Leaf rust of wheat and barley, stripe rust of wheat, and crown rust of oats all have made their appearance. Crown rust is epidemic on wild oats. Conditions appear to be favorable for epidemic of stem rust over the larger portion of the state. This, of course, cannot be determined until the grain is well in head.

"You will be interested to know that a check on the mills shows that the bunt in the state is of very small consequence. The

records show that 95 per cent of the wheat was docked for bunt before we started our campaign and not more than 5 per cent showed traces of smut and few samples are sufficiently bunty to cause dockage. The copper carbonate method is used universally in California." (Cereal Courier 19: 119-120. April 30, 1927)

LEAF RUST OF WHEAT GETS AN EARLY START

In a letter dated May 7 from E. B. Mains to H. B. Humphrey, the following information about leaf rust of wheat is given:

"I returned from Georgia and Tennessee a few days ago. I found abundant leaf rust in Georgia. Our nurseries at Experiment, Georgia, showed 100 per cent of rust on susceptible varieties, such as Little Club, some strains of Mediterranean, etc. Professor Bledsoe informed me that they have been having relatively dry weather this spring. In spite of this, leaf rust has developed vigorously. He stated that susceptible varieties have been 100 per cent rusted from about the time heads were emerging from the boot. This would indicate a considerable loss. I stopped at Knoxville on my way back. Although wheat was for the most part still in the boot, most of the varieties were showing some rust on the lower leaves. Little Club again was outstanding for infection with leaf rust, showing 100 per cent with the heads still well within the boot. A number of strains of Fulcaster were showing 50 to 65 per cent on the lower leaves.

"Doctor Gardner, on May 4, found a trace of leaf rust in a field at Vallonia, Indiana. He states that the rust was fairly widely scattered throughout the field on the lower leaves which were already showing a yellowing effect. The wheat plants in this field were about one foot high and this amount of rust at this stage indicates that we have a heavy infection in prospect. With favorable weather conditions, we have all the evidence of a heavy leaf rust year. Mr. Johnston informs me that a similar situation occurs throughout Texas, Oklahoma, and Kansas."

Concerning the leaf rust situation in Texas, Oklahoma, and Kansas, C. O. Johnston reported in the Cereal Courier of April 20 as follows:

"Studies on the overwintering of leaf rust are in progress at several stations. The past winter was very mild and the rust overwintered in abundance at Denton, Texas, and Stillwater, Oklahoma. Some winter survival also occurred at Harper and Manhattan, Kansas. Leaf rust is developing very rapidly at Denton, Texas, and some damage to wheat already has resulted. A great deal of spring rainfall has favored the development of rust at that station."

OATS SMUT

The following statement communicated by V. F. Tapke of the Office of Cereal Crops and Diseases indicates that oats smut is unusually prevalent, at least in parts of some of the more Southern States. Persons having further information concerning this subject are asked to send it to the Plant Disease Survey. The kind of smut and the varieties of oats attacked are items of interest and should be noted where possible.

> "Letters have recently been received from North Carolina, South Carolina, and Virginia reporting some unusually severe infestations of smut in oats and requesting information on the advisability of feeding smutted oats to live stock. One report from Rock Hill, South Carolina, on May 9 states that 'some of the oats are 90 per cent infected and farmers are considering cutting them for hay since there will not be anything left for threshing.' Another letter from Suffolk, Virginia, states that 'nearly one-third of a field of Fulghum oats is smutted' and a farm supply firm at Burlington, North Carolina writes 'reports of our farmers show that the oat crop is severely damaged from smut heads.'
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> "Apparently only a limited number of experiments have been conducted on the feeding of smutted oats to live stock. The results indicate that generally no injury as resulted when smutted oats are fed in moderate quantities. However, the experimenters have cautioned against feeding excessive amounts although they apparently have not proved that injury as resulted."

LEAF DISEASES OF BARLEY

California (Davis): The usual infection of leaf diseases of barley are in evidence. The Helminthosporium and Rhyncosporium disease probably will be abundant. A few specimens of barley with leaf rust have been observed. (V. H. Florell, April 15)

ALFALFA ROOT ROT

Missouri: In a trip through Buchanan, Andrew, DeKalb, Gentry, and Harrison Counties about 20 fields were observed. The majority were three to four years old and all were reduced to one-third to one-half stand due to winter injury. (Archer, April 30)

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